

1 **ABSTRACT**

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3 **'Improved Valve'**

(Figure 1)

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5 A valve for use in a downhole tool The valve has an inlet
6 communicating with the work string from which it is
7 anchored. The inlet provides a flow path of a first
8 cross-sectional area. A sealing assembly comprising a
9 spring biased seal cap moves within an outer tubular body
10 to open and close a number of ports arranged through the
11 body. The ports provide a flow path of a combined cross-
12 sectional area greater than the first cross-sectional
13 area and the valve is arranged such that fluid flow
14 through the inlet moves the seal cap to open the valve
15 and create an unimpeded flow path between the inlet and
16 the ports with negligible pressure drop. An embodiment
17 including a shear ring is described to facilitate
18 pressure testing above. A further embodiment includes a
19 load adjuster to assist in closing the valve. The valve
20 can be a high lift injection valve.

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